

**Status of the Claims:**

Claims **1-6:** (Canceled)

**7.** (Currently Amended) An apparatus comprising:  
a chamber, wherein:

- (i) said chamber has a gas-inlet first port, a second port, and a third port;**
- (ii) no two of said ports are contiguous with one other** and

a rotor, wherein:

- (i) said rotor is disposed within said chamber;**
- (ii) said rotor has a first end and a second end controls flow through said first port and said second port;**
- (iii) said rotor has a pivot point disposed between said first end and said second end between a first position and a second position;**
- (iv) said rotor in said first position, a relatively greater area for flow through said first port and a relatively lesser area for flow through said second port is provided, and in said second position, a relatively greater area for flow through said second port and a relatively lesser area for flow through said first port is provided, and wherein said relatively lesser area permits some amount of flow.**

~~has a long axis that is defined to align with said first end and said second end; and further wherein when gas flows through said gas inlet port, it flows in a direction that is toward said pivot point and substantially aligned with said long axis of said rotor.~~

**8.** (Currently Amended) The apparatus of claim 7 wherein **said third port is coupled to a control volume, and wherein in said first position of said rotor, said control volume is pressurized by said flow through said first port, and further wherein in said second position of said rotor, said control volume is depressurized by flow through said second port** ~~said chamber and said rotor collectively compose a first stage of a two-stage valve, and wherein said rotor selectively couples said gas inlet port to a second stage of said two-stage valve.~~

9. (Currently Amended) An apparatus comprising:

a chamber, wherein said chamber has a gas inlet port, a gas vent port, and a control volume port; and

a rotor, wherein:

(i) said rotor is disposed within said chamber;

(ii) said rotor has a first end and a second end;

(iii) said rotor is positionable in a first position in which said first ~~second~~ end of said rotor blocks more of said gas vent port than said first end of said rotor blocks of said gas inlet port, thereby to substantially prevent permitting a first flow of gas from to entering said chamber through said gas inlet port pressurize a control volume that is pneumatically coupled to said control volume port; and

(iv) said first end of said rotor does not contact a seating surface when it is in said first position.

10. (Currently Amended) The apparatus of claim 9 ~~wherein said chamber further comprises a control volume port and a gas vent port, and further comprising:~~

a bore, wherein said bore is pneumatically coupled to said control volume port; and

a piston, wherein said piston is disposed in said bore, and wherein said control volume is defined within said bore between said piston and said control volume port; and wherein when said rotor is in said first position, ~~said control volume port and said gas vent port are pneumatically coupled and said cylinder is depressurized.~~

11. (Original) The apparatus of claim 10 wherein said piston regulates a second flow of a gas into a nozzle, wherein said first flow of gas is less than 10 volume percent of said second flow of gas.

12. (Currently Amended) The apparatus of claim ~~10~~ 9 wherein said rotor is positionable in a second position in which said second end blocks less of said gas vent port than said first end of said rotor blocks of said gas inlet port, thereby to substantially prevent enabling the pressurized control volume to gas from flowing out ~~of~~ said gas vent port, and wherein when said rotor is in said second position, said gas inlet port and depressurize via said gas vent port said control volume port are pneumatically coupled and said bore is pressurized.

13. (Currently Amended) The apparatus of claim 12 wherein when said rotor is in said first position, said piston is ~~in a retracted position~~ **forced forward** in said bore.

14. (Original) The apparatus of claim 12 wherein said rotor rotates about 10 degrees or less between said first position and said second position.

15. (Currently Amended) An apparatus comprising:  
a chamber, **wherein said chamber is elongated, and wherein said chamber comprises a first port, and second port, and a third port, and wherein no two of said ports are contiguous with one another;** and  
a rotor, wherein:  
**(i) said rotor is disposed within said chamber;**  
**(ii) said rotor has an elongated shape that terminates at a first end and a second end thereof;**  
**(iii) said rotor pivots between a first position and a second position;**  
**(iv) in said first position, said second end substantially, but not completely, blocks said second port; and**  
**(v) in said second position, said first end substantially, but not completely, blocks said first port.**  
~~and is movable to control a first flow of gas into said chamber,~~  
~~and wherein said rotor and chamber are dimensioned and configured such that when said rotor moves to control said first flow of gas, said rotor:~~  
~~does not lift against a pressure load;~~  
~~is substantially insensitive to pressure imbalances; and~~  
~~is substantially insensitive to g loads.~~

16. (Currently Amended) The apparatus of claim 15 wherein **when said rotor pivots,** a direction of motion of said rotor is substantially perpendicular to a direction of said **a** first flow of said gas into said chamber.

17. (Currently Amended) The apparatus of claim 15 further comprising a bore, wherein said chamber is pneumatically coupled to said bore **via said third port.**

**18.** (Original) The apparatus of claim 17 further comprising a piston, wherein said piston is disposed in said bore, and further wherein said piston is movable between a first position and a second position.

**19.** (Currently Amended) The apparatus of claim 18 wherein in a said first position of said rotor, ~~said rotor couples~~ said bore receives a first flow of gas, causing said piston to move to said first position.

**20.** (Currently Amended) The apparatus of claim 19 wherein in a said second position of said rotor, ~~said rotor [de-]couples said first flow of gas from~~ flows out of said bore, causing said piston to move to said second position.

**21.** (Original) The apparatus of claim 19 further comprising a nozzle, wherein when said piston is in said first position, said piston blocks a second flow of gas into said nozzle.

**22.** (Original) The apparatus of claim 21 wherein when said piston is in said second position, said second flow of gas enters said nozzle.

**23.** (Original) The apparatus of claim 22 wherein said first flow of gas is withdrawn from said second flow of gas and is less than ten volume percent of said second flow of gas.

- 24.** (Currently Amended) An apparatus comprising:
- a chamber, wherein said chamber has an inlet port, and control volume port and a vent port; and
  - a rotor, wherein:
    - said rotor is disposed within said chamber;
    - ~~said rotor has a first end and a second end;~~
    - said rotor controls flow of gas through said inlet port and said vent port; and**
    - there is no contact between said rotor and any surface of that said chamber that would serve as a seat for preventing leakage, so that some amount of said gas flows through both said inlet port and said vent port, regardless of a position of said rotor.**
  - ~~said rotor pivots less than about 10 degrees between a first position~~  
~~and a second position;~~
  - ~~in said first position, said second end of said rotor blocks said vent port and pneumatically couples said inlet port and said control volume port; and~~
  - ~~in said second position, said first end of said rotor blocks said inlet port and pneumatically couples said control volume port and said vent port.~~

Claims **25-33:** (Canceled)